



Ø-Beat



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No. 9

We Have to Teach

Now a greater challenge faces Amateur Radio ... education. With the new change in licensing, less material is covered. It will fall to the ham community to provide all the fill-in knowledge and training to take a young ham and instill the expertise and knowledge to fully embrace Amateur Radio. Classes on code, operating procedures, equipment installation and operation, understanding radio wave propagation, digital modes, satellites, and a long list of others. I cannot think of one ham that didn't have an Elmer or ham friend to help when needed. We all need to be Elmers. Each of us has gained knowledge that can be passed on for the betterment of our growing hobby. In our busy world there will always be a little time for a new ham. Each of us has a piece of the big ham picture and together we can show this picture, 3-D and in living color, to those who have chosen to follow us into ham radio. I am in the process of developing a continuous education program based on monthly seminars. It will be like a Ham Community College with a degree in Amateur Radio Technology, building a knowledge toolbox as the goal. Seminars will be in a classroom environment to support a large attendance. Anyone who would like to help in any fashion, topic development, teach, give demonstrations, training aids, moral support, etc, please contact me.

Soon, I shall pass the gavel on to the next worthy ham to lead us to new and exciting adventures. May GOD richly bless you and yours. *de WV7T*

Harry Ridenour NØCCW SK

I just received a call from Harry Ridenour's wife that Harry passed away early the morning of August 10. Harry was active in the Pikes Peak area about 10 or so years ago. He passed his test along with Andy NØCCZ and about three others at the Denver FCC office. He was very active in Texas on packet and was one of the original members of TAPR. *de WØYNE*

Marshall Quiat AGØX Named ARRL Honorary Vice President

The ARRL has released an announcement that former Rocky Mountain Division Director Marshall Quiat AGØX has been elected as an honorary vice president of the ARRL. Marshall has been a prominent figure in the ARRL leadership in this region for nearly two decades. He's served as vice director from 1981 to 1987, then as director until 1999, and as vice director until last month, when he stepped down due to health reasons. Walt Stinson WØCP has swapped director and vice director positions with Marshall for several years, and Walt is currently our Division Director. Locally Marshall has been to a number of our club meetings, and, being a lawyer, has assisted with several tower and zoning cases in this area.

Correction

In last month's Ø-Beat on page 6, the PPRAA net was erroneously listed as starting at 1930. The net actually starts at 1900. The net details on page 2 of last month's issue were printed correctly.

Dues Schedule Changing! Details on Page 12!

Meetings Our monthly meetings are normally on the 2nd Wednesday of each month at 7 pm at Mount Calvary Lutheran Church, 1318 N. Circle Drive, about 1/2 way between Platte Ave and Constitution Ave on N. Circle. Our Annual meeting is in October.

Regular License Exam

Sessions PPRAA ARRL test sessions on the 2nd Saturday of even numbered months at 9 am at the Denver Technical College, 3245 International Cr, across from Memorial Park. Contact Erik KGØXE for details.

Examinees need to bring (1) \$6.65, preferably a check or money order payable to ARRL/VE; (2) picture ID; (3) the signed original and a copy of your current amateur radio license and CSCEs you have (we keep the copies); and (4) a pen, pencil, and calculator if needed. Memory calculators will be checked.

PPRAA Web Page See it at <http://www.qsl.net/ppraa/>. Thanks to Rick Brown KØSU, our webmaster and reflector maintainer.

Get on the PPRAA E-mail Reflector Stay on top of new or short-fused developments. Send e-mail to majordomo@qth.net; within the body type "subscribe ppraanet".

PPRAA Simplex Net All amateurs are invited to join us on Thursday evenings at 7 pm on 146.58 MHz simplex for our club net. Get the latest club and regional happenings!

Officers & Directors

*President	Mike Anderson	WV7T	634-7168	wv7t@aol.com
Vice-President	Sid White	K4ARM	495-4147	sidwhite@worldnet.att.net
Secretary	Rhoda Anderson	KB2BZY	634-7168	wv7t@aol.com
Treasurer	Rob Roller	N7LV	282-0204	n7lv@amsat.org
*Board Member	Moe Pierce	WBØRTF	550-0406	wb0rtf@amsat.org
*Board Member	Paula Gainer	KCØAGG	391-2567	pjgainer@netzero.net
Board Member	Rick Brown	KØSU	531-9423	k0su@arrl.net
*Board Member	Roger French	KBØRLF	598-9570	clutch_service@msn.com
*Past President	Moe Pierce	WBØRTF	550-0406	wb0rtf@amsat.org
Ø-Beat Editor	Rob Roller	N7LV	282-0204	n7lv@amsat.org

*This Officer/Director is completing the second year of the two-year term to which they were elected.

Committee Chairs & Contacts

Activity	(vacant -- volunteer desperately needed)			
Auditing	Jerry Allen	NØGCA	264-1278	jerall@msn.com
Asset	Mike Stansberry	KØTER	636-1290	k0ter@arrl.net
Historian	Jody Borst	KAØROZ	634-3995	kc0nc@worldnet.att.net
Interference	Bill Petty	NØNJX	532-1439	william.petty@lsil.com
Membership	Les Borst	KCØNC	634-3995	kc0nc@worldnet.att.net
Programs	Rick Brown	KØSU	531-9423	k0su@arrl.net
Publicity	Rick Brown	KØSU	531-9423	k0su@arrl.net
Public Service	Mike Stansberry	KØTER	636-1290	k0ter@arrl.net
Swapfest 2000	Bob "Rails" Ryals	KIØGF	265-9950	rryals@pcisys.net
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VE Testing	Erik Mugele	KGØXE	596-5345	erik@teuton.org
Ø-Beat	Rob Roller	N7LV	282-0204	n7lv@amsat.org
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CCARC Liaison	Ron Deutsch	NKØP	593-8352	deutschra@aol.com
RACES Officer	John Roberts	KBØVGX	575-8400	kb0vgx@worldnet.att.net

Upcoming Club Programs

September	No Info at Press Time
October	Officer, board elections & bylaw review



Articles for the Ø-Beat

Deadline for articles or ads for the October issue is Sept 26. Submit articles by e-mail, by U.S. Mail to the club's address, or in person to the editor. Editor reserves right to correct for readability, grammar, spelling, length and punctuation.

Nonprofit Organization

The PPRAA is federally recognized as a 501(c)(3) nonprofit organization and welcomes all contributions. Your contributions/donations may be tax-deductible.

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Still Propagating

In a couple of recent issues of *Ø-Beat* we've ran some articles on propagation. This issue should hold the final article on the subject, and will mostly deal with what those ARRL propagation reports really mean.

Each week the ARRL publishes a propagation bulletin. Several web sites have daily and weekly propagation forecasts. They all refer to a set of numbers that represent something having to do with the sun or the Earth: sunspot numbers, 10.7 cm flux, planetary A index, K index, to name a few. These numbers all mean something, but what? How do you use them to understand what's going on with radio signals?

Let's look at one of them: sunspots. In the August 25 ARRL propagation bulletin, it states that the number of sunspots reached a low of 84 on August 22 and 23, one of the lowest readings this year. So? How does sunspots affect propagation? What are sunspots? Sunspots are relatively cool areas on the sun's surface where the sun's magnetic field pokes through the surface of the sun. The sun goes through an 11-year cycle of increasing and decreasing number of sunspots and of solar activity in general. The last peak was in 1989, and the next peak occurs this year. We are nearing the maximum of solar cycle 23. It's number 23 because it's the 23rd peak since 1749, which is when sunspots were first counted on a regular basis. (The sunspot number is not a count of the number of sunspots, but a certain combination of the number of sunspots and the number of sunspot groups.) It's not the sunspots themselves that affect radio on Earth, but the high magnetic activity around sunspots has significant effect on the ultraviolet and X-ray emissions, which *do* have an effect on radio communications. When these emissions reach the Earth, the ionosphere becomes more ionized, which causes radio signals at higher frequencies to reflect from the ionosphere. So the sunspot number is an indicator of the amount of radiation we get from the sun, which also indicates the amount of ionization in the atmosphere. The higher the sunspot number, the higher will be the critical frequency and the maximum useable frequency, and the more exciting your DX will be! High numbers will reach into the 200's, and at the solar minimum the numbers can drop to 0.

The next solar parameter you'll see in propagation reports is the 10.7 cm flux, or sometimes just the F10 index. This number is again an indicator of solar activity. It's actually



a measurement of radio emissions at the 10.7 cm wavelength, or 2800 MHz frequency. When you talk about power hitting a surface area, you think of power per square meter. Power is measured in Joule per second, so this number is a measurement of Joules per second per square meter but with an additional factor. That factor is

$$\frac{10^{-22} J}{(m^2)(Hz)(s)} = SFU$$

... also called a Solar Flux Unit.

So if today's 10.7 cm flux is 94, that equates to:

$$94SFU = \frac{94 \times 10^{-22} J}{(m^2)(Hz)(s)}$$

This number correlates well with the sunspot number in helping to provide an indicator of solar activity. These numbers can go high or low. If they go too high or too low, there will be a negative effect on propagation. There seems to be a range of "good" numbers for this indicator. High numbers indicates a high output of X-rays, and this can cause fading and noise bursts which tends to reduce propagation and lower the MUF. If it gets much below 85 you can expect poor propagation. Numbers in the mid to high 90's are an indicator of good propagation. Numbers that get up into the hundreds can start to have a negative effect, giving you poor DX conditions.

Two other numbers represent the state of the Earth's geomagnetic field. These two numbers, the K-index and the A-index, are related to each other.

At various places around the globe, there are labs that monitor the Earth's geomagnetic field. These labs take readings, and assign a number from 0 to 9 to that reading. The higher the number, the stronger the magnetic field. There are 8 readings taken each day (once every three hours). These K-readings are plotted on a logarithmic scale, so that makes things a little complicated. Therefore, the powers that be decided to covert these log scale readings into a linear scale and call them the a-index. Each day, the eight a-indices are averaged into a single A-index. So you've got a K-index, which gives you an indication of the current geomagnetic field activity, and an A-index, which gives you the daily average of the Earth's geomagnetic field. So what. What does all of this mean? Again, like with the other parameters, these help to give you an indication of how you can expect HF propagation to perform at a certain time. The K-index, like the SFU, has

a "good" range, and outside of that range, you can expect propagation to drop out on you. Numbers between 0 and 3 generally mean that the geomagnetic activity is helping DX, and numbers greater than 4 will indicate a degradation in propagation.

Experts in the field of propagation recommend that you copy these values down for a week or two, and compare the numbers with actual propagation performance. Within a couple of weeks you should feel pretty good about understanding these numbers, and find yourself able to use them to determine whether or not you're going to work some new countries today. *de N7LV*

[The information for this propagation article comes from numerous sources. I'm not an expert on propagation, but I learned quite a bit in preparing these articles. And, as expected, I still don't know everything. Hopefully there's no bad info here. There are numerous sources for solar data on the internet, and you can also receive current solar data right off of your HF receiver, provided it can pick up WWV or WWVH. These stations broadcast time and propagation information continuously on 2.5 MHz, 5 MHz, 10 MHz, 15 MHz and 20 MHz.]

Passing the Time

[Ed: Historian Jody Borst KAØROZ is planning to provide material to give us an historical look at our past. In the interim, here are some items extracted from previous Ø-Beats.]

- **15 Years Ago this Month:** Lauren KXØO (now WØLD), Malcolm KE9S (SK), Bruce KXØE, Pete NØLA, Bill KQØH, and Jake NØCYR were the VEs at the first VE session to be held in Colorado Springs.
- **20 Years Ago this Month:** The 6-page Ø-Beat reports that the PPFMA 16/76 repeater became operational this month.

President's Soapbox

Here I am near the end of my tenure as your club president. It has been an honor to serve, first as Vice President, then President, in my very first ham club. My hope is that I brought something positive to the group and the membership has gain by my presence. Rhoda and I had not been in town 6 weeks after retiring from the Navy when you took a chance on me as VP (no one else wanting the job helped). Back in the early days (1970) Rosie WAØMNL, Ron KØLZD, and Don Carlos (SK) W9NTS (WØITU) were my guideposts. Ron was my electronics teacher at Palmer High School, Rosie was PPRAA President and worked at Palmer, and Don Carlos was "Mr.

Wizard" to me. Ron taught me, Rosie gave me the exam, and Don Carlos was my ardent supporter. Then came Smitty WBØLTV "Mr. Do-It-Right-Like-This" who I gained so much technically from. It was a wondrous time in May 1971 when my Novice license arrived and I joined PPRAA. I attended my first Field Day (yep PPRAA) and ham convention right here in Colorado Springs that summer of 1971. Some wonderful anonymous ham paid my way to the event and the Bar-B-Que the same night. That ham was wonderful to a 16-year-old new ham with few friends. Club members found crystals for my transmitter allowing me access to the airwaves. And I still have those crystals. Club members came over and erected my TV mast antenna. The club cared so much and was extremely protective of their young hams ... NO ONE messed with a PPRAA Novice! The day finally arrived when I passed the General exam in Denver (6th try). There was a PPRAA meeting that night and I proudly stood up and said, "I DID IT!" A hat was passed from member to member around the meeting and with some of its contents I bought door prize tickets one of which was pulled first and I choose a nice ¼ inch drill. I still have the drill too. I grew so much as a ham being in the club, being accepted as an equal even with a Novice license. Thank you PPRAA for being such a big part of my life and allowing me to be a part of yours. *de WV7T*

Traffic Tutorial (Part II)

[This traffic tutorial is provided by Jerry Verduft ADØA, who is an avid traffic handler. This is part 2 of 6, and will be presented over the coming months as space permits. Part I ran in the August 2000 issue.]

Now let's look at what is called the "Book" form of a message. Book messages are advantageous when we desire sending a large number of messages with common parts to different people. For example, if five messages have the same preamble (except for the number), text and signature but go to different addressees, they may be transmitted as a book of 5 provided they are sent to the same station(s) for relay. If the messages are to be sent to a number of different stations, the book of 5 must be broken down into smaller groups or individual messages. Contrary to popular misconception, booked messages need not be identical. For example, the book of 5 could still be booked even if some of the texts or signatures were different. The book format is simple. Those parts of the message which are identical, the **FIXED** parts, are sent first; then those parts which are different, the **VARIABLE** parts, are transmitted. Instead of starting with a message number (which is always one of the variable parts), first indicate the number of messages in the book.

For example, a Book of 3 for the eastern US would be sent as follows:

BOOK 3 R AD0A 19 COLO SPRINGS CO AUG 4
BT

HOPE YOU WILL FIND AN OPPORTUNITY
TO HANDLE SOME TRAFFIC DURING THE
SIMULATED EMERGENCY TEST IN
OCTOBER X 73

BT
JERRY AD0A
BT

NR 1 JOE STOFKO WB1AIU AA
7 ORCHARD PLACE AA
NAUATUCK CT 06770 AA 888 1436
BT

NR 2 PAUL LINDGREN WA2UWA AA
65 COOPER LANE AA
EAST HAMPTON NY 11937 AA 796 4344
BT

NR 3 NICK ELIAS N3AIU AA
1454 MAIN ST AA
BETHLEHEM PA AA 656 3322
BT

END BOOK AR N

On voice, of course, the separation letter groups in the above examples are not used. Pause in speech is substituted for AA, and the separative is replaced by the proword "Break." Essentially, handling traffic by books is a time savings device when you have a number of similar messages to transmit.

Science Fair Winner

Sara Witte KCØAMO (daughter of Bob Witte KBØCY) is pictured in this month's *Signal*, Journal of the Armed Forces Communications Electronics Association, as a savings bond winner in AFCEA's high school science fair this past May. Congratulations again, Sara! You may recall Sara being mentioned in an earlier *Ø-Beat* this year when she placed in this fair.

Hamfest Schedule

- **Sep 24:** Boulder ARC BARCFest, Boulder Co. Fairgrounds, Longmont. Contact BARC at **BARC50@arrl.net** or POB 17362, Boulder, CO 80308.

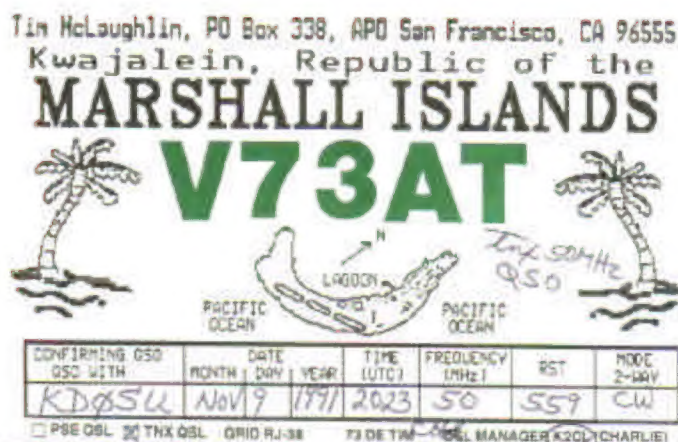
- **Nov 11:** Rocky Mountain Radio League Hamfest, Jefferson Co. Fairgrounds, Golden. Contact Ron Rose, NØMQJ, 303-985-8692, **n0mjqa@arrl.net**.

Lunch Bunch

Lunch Bunch will be on September 14 at 1130 at Home Town Buffet, Shops of the Bluffs, Austin Bluffs & N Academy. (Always the Thursday following the club meeting.) Contact Ginger Hipszky NØUOD for further details. See you there!



Cool QSL!



This card was received by KØSU (now KØSU) for a contact made on 09-Nov-1991 with V73AT in the Marshall Islands. How's your geography? Find Kwajalein, then note the band: 6 meters! Wow! (Submit your favorite QSL card!)

Morse Code Testing Change

Effective July 1, 2001, multiple choice questions will be eliminated from all Morse code exams. Passing grades would be from 25 characters solid copy or 7 out of 10 fill-in-the-blank questions.

MARC Raffle Prize Winner!

The winner of the fantastic Yaesu FT-847 grand prize in the MARC annual raffle was MARC member Bob Cowan, KØDRH! Congratulations Bob, I know you're going to enjoy that radio! de KØHBZ

Public Service & Emergency Communications Activities

The PPRAA is an ARRL Special Services Club, but it is not an emergency services club itself. The PPRAA supports all amateur radio involvement in public service and emergency communications in any way it can, including reporting activities happening in the region. These columns are based on available knowledge, and the opinions expressed are not necessarily the opinions of RACES, ARES, Skywarn or any other organization or its leadership. Logos used with permission.

RACES



<http://www.qsl.net/epcraces/>

VHF Net Tuesdays at 1930 on 147.345/448.1 MHz
CMRG repeater

John Roberts KBØVGX, RACES Officer

There are quite a few new hams recently that may be wondering what RACES is all about. RACES is a radio service for emergency preparedness, administered by FEMA, and authorized by the FCC at the request of a local government agency. Specifically, the El Paso County OEM in our case. EPCRACES is part of the overall county emergency plan, and members receive a high level of training as required by the OEM. Examples of training include Incident Command, first aid, CPR, map reading, GPS, weather spotting, and damage assessment techniques. Any ham can apply to RACES. You'll be granted a sheriff's ID card after a background check is performed and the application is approved. If you're interested, check in on the net and ask for more information. Current members, don't forget to check your net control assignments on the web page. Your turn could be next!

ARES



<http://www.qsl.net/n7lv/dist14.htm>

VHF Net Tuesdays at 1900 on 146.97 MHz
PPFMA repeater

Larry Dunn N9HSW, Emergency Coordinator

Doug Paris N4TGO is stepping down as acting Skywarn coordinator. Doug has been holding the temporary position for a year or two. The Pikes Peak Ascent/Marathon is done. Luci NØOUD did another fine job of coordinating. Many hams helped out on that one. Mike Allen NØMIK is the new AEC for training. Look for some interesting training coming up. Larry N9HSW would like to see APRS put to use in the weather area for Skywarn as a way to get weather measurements to spotters, the NWS, and hams in general. If you can assist, contact Larry. Volunteers are needed for a Colorado Springs emergency exercise planned for Wednesday, Sep 20. This will be a large-scale event requiring twenty or more hams. Contact Mike, KBØIAP, Larry, N9HSW, or Sid K4ARM to volunteer.

Portable J - Pole for Emergency Use

At the last club meeting I spoke on antennas and showed some of the antennas I have built over the last few years. One antenna that drew quite a bit of interest was portable J-Pole for two meters that is built from 300-ohm TV twin lead and a length of RG-58 coax. This is a simple antenna to build, and it provides much better coverage than the rubber duck that comes with your HT.

This design was first presented in *Ø-Beat* a few years ago by John, NØKIC and is seen often on various internet sites as well. I certainly claim no credit for it.

To build the antenna you will need 54 inches of flat 300-ohm twin lead, approximately 10 feet of RG-58 coax, and whatever coax connector you need to connect to your rig. I prefer using a BNC connector for this as most HTs use that style of antenna connector.



Picture 1

Portable J -Pole for Emergency Use

The following procedure should get you pretty darn close.

- Start with the 54 inches of twin-lead. Strip $\frac{1}{2}$ inch of insulation at one end and solder the wires together.
- Measure $1\frac{1}{4}$ inch from the soldered wires and strip the insulation on both sides. I find this is the most difficult part. Cut very carefully in order to prevent cutting or nicking the wire. See Picture 1 for the results of these steps.
- Attach the coax to this point. Center conductor on one side, shield on the other. See Picture 2. I always tape the coax to the twin lead before I start soldering to help keep things in place.
- Measure $16\frac{3}{4}$ inches from the coax shield point and cut a $\frac{1}{4}$ inch notch in the twin lead. Be sure you cut the notch in the side of the twin lead where the shield is attached. See Picture 3
- Measure $50\frac{1}{3}$ inches from the center conductor solder point and trim the twin lead at that point. I usually put a hole in the center of the plastic so I can run a nylon cord through the twin lead to hang the antenna where needed. See Picture 5.
- Go back to the coax feed point and tape tightly with electrical tape to provide strength and for weatherproofing. See Picture 4. I typically put a couple of turns of tape around the $\frac{1}{4}$ inch notch for the same reason.
- Put the coax connector on the other end of the coax and you are ready to try it out.

You should hang the antenna at least two wavelengths (4 meters) from any metal objects and measure the SWR. These dimensions should be pretty close at 146 MHz. If you typically operate in the high or low end of the band you may want to change the length of the $\frac{1}{4}$ wave section as follows:

- | | | |
|-----------|---|--------------|
| ➤ 144 MHz | = | 17 inches |
| ➤ 145 MHz | = | 16.88 inches |
| ➤ 146 MHz | = | 16.75 inches |
| ➤ 147 MHz | = | 16.65 inches |
| ➤ 148 MHz | = | 16.54 inches |



Pictures 2, 3, and 4 (top to bottom)

If you have an antenna analyzer you may want to just trim the $\frac{1}{4}$ wave section for the best SWR.

I have found this antenna to be useful when I am camping as well as for emergency use. With 10 feet of coax it still only weighs 4 ounces and I don't even notice it in my backpack. I have a couple of these antennas around the house and usually keep one in my tool bag in the car as well. They are lots of fun and are inexpensive if you build them yourself.

Photos and article by Rick Brown KØSU



Picture 5

CMRG Work Party a Big Success!

You just can't imagine the amount of work involved with installing a repeater until you actually go and volunteer to help out on a work party. That's exactly what several people did the first weekend in August. The Cheyenne Mountain Repeater Group has recently obtained a vacant building (not much more than a steel shed, really) on Fremont Peak, about 10 mi SW of Salida. The CMRG now owns the building, and has a 20 yr lease with the US Forest Service to use some space on that mountain. On that weekend, the work party, consisting of Dave Novotny WA6IFI, Perry Jager NØWMZ, Rob Roller N7LV, Mike Nelson KBØYGG, Jason DeVries KCØHHZ, George Lockhart WØGHL and a non-ham friend of Perry's spent the weekend on Fremont Pk. That weekend supplies were hauled to the top, including over a ton of concrete mix, 500 lbs of water, about 1,500 lbs of sand, a portable cement mixer, and many other supplies. The goal was to mount several tower bases in concrete, and to wire and insulate the building. Commercial



power is available on the peak since it's also a commercial site. The view from the site is spectacular! You can see Leadville to the north, Pikes Peak to the east, and clear down into New Mexico to the south. At night, when it's clear, there are so many lights from all the nearby towns it almost seems like you're flying into LAX. Mission accomplished! After spending the first 1/2 day driving up, then working the rest of the day, staying overnight at 12,000 ft, and working nearly all the next day, plus dealing with all of the problems that Murphy throws in (we only rolled the cement mixer twice!), I've come to realize these guys (i.e., Dave WA6IFI, Perry NØWMZ, Harry Russell NØSFP and Cliff Mikkelson NØZUQ) deserve a tremendous amount of credit for keeping the CMRG systems going. There are a handful of other photos on the CMRG's web site: <http://www.qsl.net/cmrg/> de N7LV with photos by WA6IFI

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HEATH HW-101 , HP23 P/S, new finals and relay driver, completely aligned to factory specs. \$250 firm	KENWOOD TS830S , nice, \$600
HEATH SB-200 , Amp, exc cond, up to factory specs. \$350 firm	KENWOOD TS930S/AT , very nice, \$800
HUSTLER 4BTV , 40-10m vertical, all tuned. \$70	KENWOOD 2100 , HF SWR / wattmeter, matches most Kenwood, \$75
ICOM PS-55 20A power supply. \$150	KENWOOD TR-9130 , 2m all mode, TTM, encode box. \$315
ICOM R1 HT Receiver, 100 Hz to 1300 MHz. \$225	KENWOOD TW-4000A , 2/70m dual band mobile, TU4C tone encoder, TTM, voice synth, CAP/MARS, 25W. \$225
ICOM SP3 speaker. \$40	MFJ 9406X 6mtr SSB, new \$250, used \$175, CW adapter \$40
ICOM 730 . \$450	MFJ 269 TO2 SWR analyzer, 450 MHz, New. \$310
ICOM 735 , w/ hand mic, electronic keyer, & mounting bracket. \$625; w/o keyer & mounting bracket. \$600	MFJ 462B All-mode multi reader, CW, RTTY, ASCII, AMTOR, will hook to printer. \$90
ICOM 745 , with internal PS, loaded with filters and TCXO. \$600	MFJ 1278B All-mode packet controller, used. \$150
KENWOOD AT-230 , Manual tuner. \$130	MIRAGE D1010N , 440 amp, 10/100w, \$250
KENWOOD AT-250 , Auto tuner. \$250	MIRAGE A1015G , 6m amp, preamp, 10/150w, like new, \$250
KENWOOD PS 50 , 20 amp power supply. \$150	REALISTIC 394 AM, CW, SSB, SW receiver, AC/DC. \$150
KENWOOD SM-220 , Scope, no pan adapter. \$275	SONY ICF5900W AM, FM, SSB, CW, portable SW receiver. \$100
KENWOOD TM733 , 2/70 Mobile, loaded, cross band repeat, dual receive, \$300	TUCKER T-3000 Antenna Tuner 3kw PEP, cross-needle meter \$275
KENWOOD TS120S , 5-band xcvr. \$325	YAESU FT101E , xcvr w/ hand mic, good cond, \$325, also B & EE, \$300 ea
KENWOOD TS140S . \$550	YAESU FT101ZD , digital, great cond, \$450
KENWOOD TS440S , \$750	YAESU FT102 , digital, AM/FM, WARC, excellent cond, \$550
KENWOOD TS440S/AT , \$850	YAESU FT109RH , 220 MHz HT, 4w, \$150, with tone encoder installed \$175
KENWOOD TS450S/AT , \$850	YAESU FTV707 , Transverter, 6m module installed, for FT707-901-902, \$200
KENWOOD TS520 , \$325	YAESU FT757GX , completely aligned, excellent cond, \$575
	YAESU TWINS, FL-101/FR-101 , Trnscvr, quartz aligned, works good. \$450

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August 2000

General Meeting Minutes



The August 9th 2000 meeting of the Pikes Peak Radio Amateur Association was called to order by President Mike Anderson WV7T at 7pm. There were 42 members present. Mike asked for corrections or omissions to

the July club meeting minutes printed in *Ø-Beat*. A motion was approved to accept minutes as printed. Rob N7LV gave a combined treasurer's report for June and July 2000. Sid K4ARM spoke on the good turnout for the club's August picnic and tailgate hamfest. John NØQJS was recognized as the "Iceman" for providing ice to cool the stored food and drinks. Rick KØSU presented information

on the upcoming ham testing session at Denver Technical annex on 12th. Mike WV7T is still taking names for Field Day pins. He says he will order the pins in the near future. Mike WV7T printed pictures of the club's picnic for club members to see on one of the meeting tables. Rosie WAØMNL is still looking for one-page biographies of hams for a club member book. Ryan KCØGLQ informed the club of a misprint of previous club 2m net information. Lunch Bunch was noted to be at Austin Bluffs at Hometown Buffet. Mike WV7T awarded the long awaited Homebrew Night Award Certificates. The Hammy for August 2000 went to ADØA for his donation of a transceiver to a new, young ham. Club meeting adjourned at 8:43pm. *Submitted by Rhoda Anderson, KB2BZY, Secretary.*

Board Meeting Minutes

[The September board meeting will be held at KØSU's QTH on Monday Sep 18. RSVP 531-9423.]

The August 14th 2000 PPRAA board meeting was called to order by president Mike Anderson WV7T at 7:00pm at the home of vice president Sid White K4ARM. Board members in attendance: Mike WV7T, Sid K4ARM, Rhoda KB2BZY, Rob N7LV, Moe WBØRTF, Rick KØSU, Bill KDØJU (proxy for Roger KBØRLF). Absent Paula KCØAGG and Roger KBØRLF. Mike asked the board about whether the club picnic might be better combined with Field Day or left as a separate activity. The board felt it was better to be a separate activity. Mike asked Rob to assist with evaluating the secretary's records before the change of officers. Rob spoke about a ham presentation he is giving at Barnes & Noble to young people the end of August. The slate of prospective officers for 2001 was looked at. Mike told the board that due to an illness in his family the code and theory classes have been put on hold but he is working on a monthly, one-day seminar as a substitute. Rick said he would contact Frank McNally regarding ham classes this fall/winter. Mike WV7T will coordinate with Mike KØTER to send Agilent Technologies a letter of appreciation for use of their excellent recreation facilities for Field Day. Mike WV7T volunteered to assist with next year's club property audit. Rick KØSU requested ideas for future club programs. Some suggestions were MAFFS firefighting, a local meteorologist, Skywarn, an open membership/board forum. Rick also indicated he needed to be relieved of publicity and programs duties. There was discussion regarding bylaw changes that need to be considered. A motion was passed to make all club dues due at the first of each year. The board is considering absentee ballots and a study will be done to see if it is legal. Meeting adjourned 8:40pm. *Submitted by Rhoda Anderson, KB2BZY, Secretary.*

JOTA in October

Once again Dan is planning to coordinate the Jamboree-On-The-Air, or JOTA. This Boy/Girl Scout function puts Scouts on the air and in contact with other Scouts around the country and the world via ham radio. This year's date is Oct 21. Here's part of Dan's coordination message. He needs the following: (1) restrooms (that flush); (2) heated room(s); (3) tables and chairs; (4) city power; (5) in Colorado Springs; (6) room that can be partitioned; and (7) satellite station (Tom?)

The second part is to go where no one in their right mind would go ... to anywhere the Scouts are. Dan will likely

post sign-up sheets at the Scout offices if they want a radio (and operator) to attend an event they may be having over the weekend of Oct 21st. They may indicate they'd like to visit a station ... yours? at your house? This may provide a longer term relationship w/ a pack or troop, which would be a "goodness" for amateur radio. Comments please?

WHERE: Boy Scout Office, 525 E. Uintah, (setup Friday Oct 20th at 3:30), operation on Sat Oct 21.

What I know I need: (1) PPRAA sponsorship; (2) HF station w/antennas & coax; (3) other stations w/ volunteers; (4) any program ideas (antenna building, build blinky light, etc); (5) and Help! (let me put your name down as a helper) planning, safety, certificates (to Scouts, and helpers), etc.

de Dan Scott KBØPPM (635-0871 or kb0ppm@arrl.net)

Treasurer's Report

\$270.00 - \$331.55 = (\$61.55) (month ending 07/31/2000)

Income - Expenses = Gain (Loss)



Member Dues Changing: We're not changing the *amount* of the dues, just *when* they're due. Years ago, the PPRAA used to collect everyone's dues at the same time each year.

Some time about ten years ago the club decided to go to a pattern where each member's dues became payable 12 months after joining. Well, we're going back to the first method. With your next renewal, your membership will expire in December, and you'll need to renew before the January mailing labels are printed in order to stay current. Depending on how much you pay, it'll expire in Dec/00 or Dec/01. This will be a little confusing and may slow things down a bit when you pay me at the meetings, but by next January things will have smoothed out a little. The details for this are shown on page 12. *de N7LV*

Membership Report

Members who need to see the treasurer

BRIAN BROWN	KBØMFA
RICK BROWN	KØSU
DAVE KURTH	NØUVR
FREDERICK MAXWELL II	KCØFRM
TIMOTHY RADER	KCØGBH

Total Number of Members
199

Pikes Peak Region Ham Event Calendar

September / October 2000 -- Please see Page 2 for Points of Contact						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2 MARC VE Testing PSE: Balloon
3 PSE: Balloon Classic	4 PSE: Balloon Classic Labor Day	5	6	7	8	9 PAFB Air Show
10	11	12	13 PPRAA Mtg	14 Lunch Bunch	15	16
17 Fox Hunt Susan Korman Breast Cancer Walk	18 PPRAA Board Mtg	19	20 MARC Mtg COS OEM Exercise	21 RACES Mtg	22	23
24 BARCFest	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11 PPRAA Mtg	12 Lunch Bunch	13	14 PPRAA VE Testing
15 Fox Hunt	16 PPRAA Board Mtg	17	18 MARC Mtg	19 RACES Mtg	20	21
22	23	24	25	26	27	28
29	30	31				

Membership Application for the Pikes Peak Radio Amateur Association, Inc. P.O. Box 16521, Colorado Springs, CO 80935-6521	
Date: _____ Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Call: _____ Class: N T + G A E Phone: _____ Mbr of ARRL? <input type="checkbox"/> Yes <input type="checkbox"/> No E-mail: _____ Additional Family Members to Join/Renew: Name: _____ Call: _____ Class: _____ ARRL? _____ Name: _____ Call: _____ Class: _____ ARRL? _____ Name: _____ Call: _____ Class: _____ ARRL? _____	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> New Member <input type="checkbox"/> Renewal </div> <div> In which activities would you like to participate? </div> </div> <div style="margin-top: 10px;"> Field Day <input type="checkbox"/> Demonstrations <input type="checkbox"/> Nets or round tables <input type="checkbox"/> Organize activities <input type="checkbox"/> Teach ham classes <input type="checkbox"/> </div> <div style="margin-top: 10px;"> Full Member \$15: <input type="checkbox"/> Family Membership \$18: <input type="checkbox"/> Over 65 \$10: <input type="checkbox"/> Over 65 Family \$12: <input type="checkbox"/> Associate \$12: <input type="checkbox"/> Ø-Beat Only \$12: <input type="checkbox"/> ARRL Dues Incl'd \$34: <input type="checkbox"/> Donation to Club: _____ </div> <div style="margin-top: 10px;"> Total Enclosed: _____ </div>
Would you like to receive Ø-Beat electronically via e-mail in PDF format <u>instead</u> of a printed copy? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Circle your interests ⇒ HF / V/UHF / FM / SSB / Digital / DX / Contests / Technical / Hardware / Other _____	
Renew your ARRL membership through the PPRAA! Send your ARRL renewal form and your check for the amount due to the ARRL to the PPRAA. Make the check payable to the PPRAA. The PPRAA will forward your renewal form to the ARRL. The PPRAA keeps \$2 as a donation or commission, and pays the difference to the ARRL.	
New and renewing members must submit a completed application form along with your check to the Treasurer. Please Type or Print Clearly!	

Dues Schedule Changing

If you've been with the PPRAA over 10 years you remember that at one time all dues were due in January. The PPRAA sent out one reminder to everyone via the Ø-Beat. Well, we're going back to that system. Beginning at the September meeting, people renewing will be asked to pay through the end of December, or through December 2001, if they so desire. That'll put them in synch with the new system. By Dec 2001 most, if not all, members will be on the new system. (A couple of folks have paid ahead a year or two; they'll catch up soon after that.) When you pay your dues, please follow the schedule below to get in synch with this system. New members will pay through the end of the year, and may, at their option, pay through the next year as well. The table below may look a little confusing, but it'll clear up after Jan.

Current Members				
If your membership expires in:	Full amount:	Family amount:	Senior amount:	Sr Family amount:
Jan 01	\$13.75	\$16.50	\$9.17	\$11.00
Feb 01	\$12.50	\$15.00	\$8.33	\$10.00
Mar 01	\$11.25	\$13.50	\$7.50	\$9.00
Apr 01	\$10.00	\$12.00	\$6.67	\$8.00
May 01	\$8.75	\$10.50	\$5.83	\$7.00
Jun 01	\$7.50	\$9.00	\$5.00	\$6.00
Jul 01	\$6.25	\$7.50	\$4.17	\$5.00
Aug 01	\$5.00	\$6.00	\$3.33	\$4.00
Sep 00	\$3.75	\$4.50	\$2.50	\$3.00
Oct 00	\$2.50	\$3.00	\$1.67	\$2.00
Nov 00	\$1.25	\$1.50	\$0.83	\$1.00
Dec 00	\$15.00	\$18.00	\$10.00	\$12.00

New Members				
If you'll receive your first Ø-Beat in:	Full amount:	Family amount:	Senior amount:	Sr Family amount:
Jan	\$15.00	\$18.00	\$10.00	\$12.00
Feb	\$13.75	\$16.50	\$9.17	\$11.00
Mar	\$12.50	\$15.00	\$8.33	\$10.00
Apr	\$11.25	\$13.50	\$7.50	\$9.00
May	\$10.00	\$12.00	\$6.67	\$8.00
Jun	\$8.75	\$10.50	\$5.83	\$7.00
Jul	\$7.50	\$9.00	\$5.00	\$6.00
Aug	\$6.25	\$7.50	\$4.17	\$5.00
Sep	\$5.00	\$6.00	\$3.33	\$4.00
Oct	\$3.75	\$4.50	\$2.50	\$3.00
Nov	\$2.50	\$3.00	\$1.67	\$2.00
Dec	\$1.25	\$1.50	\$0.83	\$1.00

Pikes Peak Radio Amateur Association, Inc.
P.O. Box 16521
Colorado Springs, CO 80935-6521 USA

First Class Mail

To: